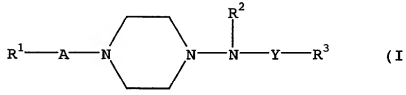
WHAT IS CLAIMED IS

1. A method for specifically potentiating an N-type Ca^{2+} channel activity, which method comprises administering an effective amount of a compound of the following formula (I):



(I)

wherein R^1 is lower alkyl, aryl, ar(lower)alkoxy or a heterocyclic group, the above groups being optionally substituted by halogen, R^2 is hydrogen atom or lower alkyl, R^3 is cyclo(lower)alkyl, aryl or ar(lower)alkyl, the above groups being optionally substituted by halogen, A is -CO-, $-SO_2-$ or lower alkylene, and Y shows -CO-, $-SO_2-$ or -CONH-, a salt thereof, a prodrug thereof or a solvate thereof to a subject.

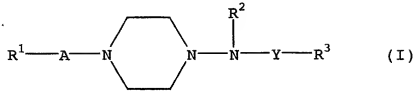
2. The method of claim 1, wherein the compound of the formula (I) is N-(4-acetyl-1-piperazinyl)-p-fluorobenzamide monohydrate.

3. A method for the prophylaxis or treatment of brain disorders, which comprises administering an effective amount of a compound having an effect of specifically potentiating an N-type Ca^{2+} channel activity to a subject.

4. The method of claim 3, wherein the brain disorder is selected from the group consisting of dementia, amnesia, schizophrenia, manic-depressive psychosis, stroke, head trauma, nicotine withdrawal symptom, spinal trauma, anxiety, thamuria, incontinence of urine, myotonic dystrophy, attention deficit hyperactivity disorder, narcolepsy, Parkinson's disease, autism and psychosomatic disorder.

5. The method of claim 3, wherein the compound having an effect of specifically potentiating an N-type Ca^{2+} channel activity is

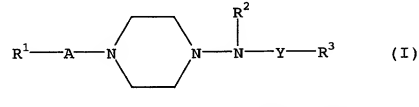
a compound of the following formula (I):



(I)

wherein R^1 is lower alkyl, aryl, ar(lower)alkoxy or a heterocyclic group, the above groups being optionally substituted by halogen, R^2 is hydrogen atom or lower alkyl, R^3 is cyclo(lower)alkyl, aryl or ar(lower)alkyl, the above groups being optionally substituted by halogen, A is -CO-, $-SO_2-$ or lower alkylene, and Y shows -CO-, $-SO_2-$ or -CONH-, a salt thereof, a prodrug thereof or a solvate thereof.

6. The method of claim 3, wherein the brain disorder is selected from the group consisting of dementia, amnesia, schizophrenia, manic-depressive psychosis, stroke, head trauma, nicotine withdrawal symptom, spinal trauma, anxiety, thamuria, incontinence of urine, myotonic dystrophy, attention deficit hyperactivity disorder, narcolepsy, Parkinson's disease, autism and psychosomatic disorder, and wherein the compound having an effect of specifically potentiating an N-type Ca^{2+} channel activity is a compound of the following formula (I):



(I)

wherein R^1 is lower alkyl, aryl, ar(lower)alkoxy or a heterocyclic group, the above groups being optionally substituted by halogen, R^2 is hydrogen atom or lower alkyl, R^3 is cyclo(lower)alkyl, aryl or ar(lower)alkyl, the above groups being optionally substituted by halogen, A is -CO-, $-SO_2-$ or lower alkylene, and Y shows -CO-, $-SO_2-$ or -CONH-, a salt thereof, a prodrug thereof or a solvate thereof.

7. The method of claim 5, wherein the compound of the formula (I) is N-(4-acetyl-1-piperazinyl)-p-fluorobenzamide monohydrate.

8. The method of claim 6, wherein the compound of the formula (I) is N-(4-acetyl-1-piperazinyl)-p-fluorobenzamide monohydrate.

9. A method for screening a compound having an effect of specifically potentiating an N-type Ca^{2+} channel activity, which method comprises steps of bringing a neuronal voltage-dependent calcium channel α_{1B} subunit expression cell into contact with a test compound; measuring a membrane current of the cell; bringing a neuronal voltage-dependent calcium channel α_{1B} non-expression cell into contact with a test compound; measuring a membrane current of the non-expression cell; and comparing the membrane current of the aforementioned expression cell and the membrane current of the non-expression cell.

10. The method of claim 9, wherein the neuronal voltage-dependent calcium channel α_{1B} non-expression cell is a cell made to express a neuronal voltage-dependent calcium channel α_{1A} or α_{1E}.

11. The method of claim 9, wherein the expression cell is *Xenopus* oocyte made to express a neuronal voltage-dependent calcium channel α_{1B} subunit.

12. The method of claim 10, wherein the expression cell is *Xenopus* oocyte made to express a neuronal voltage-dependent calcium channel α_{1B} subunit.

13. The method of claim 9, wherein the neuronal voltage-dependent calcium channel α_{1B} non-expression cell is *Xenopus* oocyte made to express a neuronal voltage-dependent calcium

channel α_{1A} or α_{1E}.

14. The method of claim 11, wherein the neuronal voltage-dependent calcium channel α_{1B} non-expression cell is *Xenopus* oocyte made to express a neuronal voltage-dependent calcium channel α_{1A} or α_{1E}.

15. The method of claim 3, wherein the compound having an effect of specifically potentiating an N-type Ca^{2+} channel activity is obtained by the screening method according to claim 9.

16. The method of claim 3, wherein the compound having an effect of specifically potentiating an N-type Ca^{2+} channel activity is obtained by the screening method according to claim 10.

17. The method of claim 3, wherein the compound having an effect of specifically potentiating an N-type Ca^{2+} channel activity is obtained by the screening method according to claim 11.

18. The method of claim 3, wherein the compound having an effect of specifically potentiating an N-type Ca^{2+} channel activity is obtained by the screening method according to claim 12.

19. The method of claim 3, wherein the compound having an effect of specifically potentiating an N-type Ca^{2+} channel activity is obtained by the screening method according to claim 13.

20. The method of claim 3, wherein the compound having an effect of specifically potentiating an N-type Ca^{2+} channel

activity is obtained by the screening method according to claim 14.